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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,839

08/09/2006

Horst Eisert

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EXAMINER

MOK, ALEX W

ART UNIT

PAPER NUMBER

2834

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,839	<b>Applicant(s)</b> EISERT ET AL.	
	<b>Examiner</b> ALEX W. MOK	<b>Art Unit</b> 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/5/07</u> .  | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement filed 2/5/07 contains some documents which have incorrect document numbers (including German document DE 29512310). Please submit an information disclosure statement with the corrected document numbers.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the flat resistor and the beads and flanges for the surface-enlarging extensions must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "beads" and "flanges" in claim 10 are not shown in the drawings nor sufficiently defined in the written description to provide a clear understanding of the claimed invention, therefore rendering the claim indefinite.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 7, 8, 13, and 15-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Richter (German Patent Document No.: DE 29512310).

For claim 1, Richter teaches the claimed invention comprising a base plate (reference numeral 5, figure 2), brush system elements mounted on the base plate (see figure 1), conductors provided on or in the base plate (figure 2) and at least one electrical flat resistor enclosed in a resistor housing (reference numeral 7, figure 2), said resistor housing being made of a thermally conductive material and provided with air passage openings (reference numeral 13', figure 3).

For claim 2, Richter illustrates the base plate having an essentially discoidal shape and having a cut-out in its central area for accommodating the armature shaft with the commutator (see figure 2).

For claim 7, Richter illustrates the air passage openings being bore- or slit-shaped perforations through the resistor housing (see figures 3, 5).

For claim 8, Richter discloses metal for the housing (see Title).

For claim 13, Richter illustrates the flat resistor being a resistor foil, a meander-shaped flat resistor or a wire-shaped resistor (see figures 3-5).

For claim 15, Richter illustrates the resistor housing being implemented in an open manner (see figures 3-5).

For claim 16, Richter discloses the brush system for an electromotive drive (see title).

For claim 17, Richter discloses brush holder supports (see figures 1, 2).

***Claim Rejections - 35 USC § 103***

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 3, 4, 6, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter as applied to claim 1 above, and further in view of Wille et al. (US Patent No.: 5949173).

For claim 3, it would have been obvious to have the resistor housing be disposed in the same plane as the base plate, since Wille et al. illustrates electronic components being disposed on the same plane as the base plate (see figure 9), and a person of ordinary skill in the art would have been able to insert them in another cut-out in the base plate for the purpose of having a space saving design for the brush system.

For claim 4, it would have been obvious to make the resistor housing essentially disk-segment-shaped, since the claimed configuration is just one of numerous configurations a person of ordinary skill in the art would find obvious for the purpose of maintaining a space saving design.

For claim 6, it would have been obvious to have the flat resistor be connected via connecting lugs to the conductors of the base plate, since Wille et al. use a similar configuration for the connecting lugs (reference numerals 130, 132, figures 8A, 8B, 9), and a person of ordinary skill in the art would have been able to include this configuration for providing simple means of contact for the resistor and the conductor.

For claim 18, Richter discloses the base plate, the brush system elements, the conductors, the resistor housing, air passage openings, and the discoidal shape and the cut-out for the base plate as explained for claims 1 and 2 above, and it would have been obvious to have the resistor housing be disposed in the same plane as the base plate as explained for claim 3.

For claim 19, it would have been obvious to have a disk-segment shape for the resistor housing as explained for claim 4.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richter as applied to claim 1 above, and further in view of Walther (US Patent No.: 4896067).

For claim 5, it would have been obvious to have the resistor housing be connected to the base plate via snap-in connections, since the technique of snap connections is already known in the art as exhibited by Walther (see Abstract), and a person of ordinary skill in the art would have been able to include this configuration for the purpose of quickly and easily inserting the resistor unit to the brush system.

10. Claims 9, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter as applied to claim 1 above, and further in view of Kajino et al. (US Patent No.: 5821662).

For claims 9 and 11, it would have been obvious to have surface-enlarging extensions, and have air flow deflecting elements for the surface-enlarging extensions, since Kajino et al. disclose a similar configuration for the surface-enlarging extensions



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(see figures 18A, 18B, 25, and column 14, lines 45-52), and a person of ordinary skill in the art would have been able to apply this configuration to the resistor housing for the purpose of effectively dissipating heat.

For claim 12, since it would have been obvious to have the surface-enlarging extensions as explained for claims 9 and 11 above, it also would have been obvious to provide the surface-enlarging extensions for contacting the resistor housing to the motor housing since a person of ordinary skill would have been able to apply this configuration to the invention of Richter for the purpose of further dissipating the heat and allow the resistor unit to be quickly inserted in the brush system.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richter as applied to claim 1 above, and further in view of Blessing et al. (US Patent No.: 4758816).

For claim 14, it would have been obvious to have the resistor housing be implemented in a gas-, liquid- and particle-tight manner, since Blessing et al. use a configuration where the resistor is covered with a protective layer (see column 2, lines 4-9), and a person of ordinary skill in the art would have been able to modify this configuration so that corrosion can be prevented from gas, liquid and particles.

12. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richter and Wille et al. as applied to claim 18 above, and further in view of Walther (US Patent No.: 4896067).

For claim 20, it would have been obvious to have snap-in connections for the same reasons given for claim 5 above.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALEX W. MOK whose telephone number is (571)272-9084. The examiner can normally be reached on 7:30-5:00 Eastern Time, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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